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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/639,892	08/15/2000	Takashi Shinzaki	1075.1133/JDH	4113

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EXAMINER

HESELTIME, RYAN J

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/639,892

Applicant(s)

SHINZAKI ET AL.

Examiner

Ryan J Hesseltine

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 8-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species I, corresponding to Figures 2-5 and claims 1-7, in Paper No. 5 is acknowledged.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Setlak et al. (USPN 6,259,804, newly cited, "Setlak").
5. Regarding claim 1, Setlak discloses a personal authentication system using biometrics information, which identifies or authenticates an individual using biometrics information (column 1, line 6-20), comprising: a biometrics information inputting section (fingerprint sensor 30) having a function to acquire biometrics information (column 4, line 25-51); a biometrics information converting section for converting said biometrics information, acquired through said biometrics information inputting section, into a state to be acquired on a predetermined acquisition (binarizing) condition (column 8, line 51-64); and a biometrics characteristic data

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(minutiae) extracting section for extracting biometrics characteristic data from the biometrics information obtained by the conversion in said biometrics information converting section (column 8, line 44-50).

6. Regarding claim 2, Setlak discloses that said biometrics information inputting section is of a type acquiring said biometrics information as image data (column 8, line 4-11), and said biometrics information converting section converts said biometrics information, acquired through said biometrics information inputting section, into image data with a predetermined resolution included in said predetermined acquisition condition (column 2, line 58-column 3, line 10; column 10, line 64-column 11, line 15).

7. Regarding claim 3, Setlak discloses that said biometrics information inputting section is of a type acquiring said biometrics information as image data (column 8, line 4-11), and said biometrics information converting section converts said biometrics information, acquired through said biometrics information inputting section, into image data with a predetermined resolution (see above discussion of claim 2) and predetermined numbers of pixels in vertical and horizontal directions (column 5, line 47-58), included in said predetermined acquisition condition.

8. Regarding claim 4, Setlak discloses that said biometrics information inputting section is of a type acquiring said biometrics information as image data (column 8, line 4-11), and said biometrics information converting section converts said biometrics information, acquired through said biometrics information inputting section, into image data with a predetermined image characteristic included in said predetermined acquisition condition (column 2, line 58-column 3, line 10; column 10, line 64-column 11, line 15).

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9. Regarding claim 6, Setlak discloses that said biometrics information inputting section is of a type acquiring fingerprint information as said biometrics information in the form of image data (column 8, line 4-11), and said biometrics information converting section converts said fingerprint information, acquired through said biometrics information inputting section, into image data with a predetermined relationship (analog-to-digital conversion range) in brightness (intensity) between ridge lines and trough lines, included in said predetermined acquisition condition (column 10, line 47-54; column 11, line 16-26).

10. Regarding claim 7, Setlak discloses that a brightness relationship judging section is provided to judge a relationship in brightness (intensity) between ridge lines and trough (valley) lines in said fingerprint information acquired through said biometrics information inputting section, and said biometrics information converting section conducts conversion processing of image data in accordance with the judgment of the brightness (intensity) relationship judging section (column 10, line 47-56; column 11, line 27-46).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Setlak as applied to claim 1 above, and further in view of Upton (USPN 6,052,475, newly cited).

13. Regarding claim 5, Setlak does not disclose that said biometrics information inputting section is of a type acquiring said biometrics information as time series data. Upton discloses a

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fingerprint detector using a ridge resistance sensing array wherein said biometrics information inputting section (fingerprint detector 10) is of a type acquiring said biometrics information as time series (sample trajectory) data (column 4, line 3-15, line 53-59), and said biometrics information converting section converts said biometrics information, acquired through said biometrics information inputting section (column 4, line 59-64), into time series data with a predetermined sampling period (rate) included in said predetermined acquisition condition (column 8, line 5-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to acquire biometrics information as time series data as taught by Upton in order to provide a fingerprint detector employing a sensor array with a small number of sensing elements, thereby simplifying the data processing requirements and lowering overall power consumption (column 2, line 17-32), and constantly providing an optimized number of data points independent of the fingertip velocity (column 8, line 20-29).

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- JP 63-150781 to Igaki et al. discloses an individual fingerprint collation device including a resolution discrimination section to reduce collation time.
- USPN 5,063,603 to Burt discloses a dynamic method for recognizing objects from a time series of successive high-resolution frames of image data.
- USPN 5,642,431 to Poggio et al. discloses a network-based system and method for detection of faces including a window resizer, brightness corrector, and histogram equalizer.

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- USPN 5,909,501 to Thebaud discloses systems and methods with identity verification by comparison and interpretation of skin patterns such as fingerprints including test data are normalization.
- USPN 5,910,999 to Mukohzaka discloses an individual identification apparatus based on frequency domain correlation of plural reference images and a target image.
- USPN 5,990,804 to Koyama discloses an animate body detector by measuring the change rate of capacitance for a predetermined period of time.
- USPN 6,134,340 to Hsu et al. discloses a fingerprint feature correlator wherein an image is converted to a binary image and cropped to a standard size.
- USPN 6,675,210 to Takeo et al. discloses a method, apparatus, and recording medium for data transfer including a resolution converting unit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan J Hesseltine whose telephone number is 703-306-4069.

The examiner can normally be reached on Monday - Friday, 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan J. Hesseltine
May 4, 2004



JINGGE WU
PRIMARY EXAMINER